



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,932	08/11/2006	Johan Torsner	P19250-US1	7997
27045	7590	07/22/2011		
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER SARWAR, BABAR	
			ART UNIT 2617	PAPER NUMBER
			NOTIFICATION DATE 07/22/2011	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

kara.coffman@ericsson.com  
jennifer.hardin@ericsson.com  
melissa.rhea@ericsson.com

# Office Action Summary

**Application No.**

10/597,932

**Applicant(s)**

TORSNER ET AL.

**Examiner**

BABAR SARWAR

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 50,53-57,67,70-81,83 and 86-97 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 50,53-57,67,70-81,83 and 86-97 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date 08/16/2010
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/14/2010 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 50, 53-57, 67, 70-81, 83 and 86-97 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 50, 53-57, 67, 70-81, 83 and 86-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No.: 7,406,314 B2, fully supported by Provisional Application No.: 60/486,584, filed on 07/11/2003) in view of Wallentin et al. (US Pat. No.: 6,594,238 B1).

Consider **claims 50, 67, and 83**, Sharma teaches a method in a User Equipment (UE) for initiating a data transfer from the UE in a Universal Mobile Telecommunications

System (UMTS) terrestrial radio access network (UTRAN) (**See Sharma e.g., the WTRU with connection mode configuration with plurality of functional states, i.e., monitoring state/duplex state, and initiation of downlink/uplink communication of Col. 9:43-67, Figs. 3-4**). Sharma further teaches wherein the UTRAN comprises at least one Radio Network Controller (RNC) connectable to the UE (**See Sharma e.g., the UMTS system architecture, i.e., RNCs, Node Bs, and WTRUs, of Col. 1:42-60, Fig. 5**) that is capable of being in the states UTRAN Registration Area Paging Channel (URA PCH), Cell Paging Channel (CELL PCH) or Cell Dynamic Host Configuration (CELL DCH) (**See Sharma e.g., a multiple of defined states in UTRAN. i.e., URA PCH, CELL PCH, CELL DCH of Col. 2:57-65, Fig. 1a**),

However, Sharma does not explicitly teach the method comprising the steps of: introducing delay reducing information into a data transfer initiating message by the UE; Wherein the data transfer initiating message is an uplink cell update message transmitted by the UE; and wherein the delay reducing information comprises information indicating whether the traffic volume of the data to be transmitted is above a pre-configured threshold; transmitting the data transfer initiating message by the UE; receiving a message from the RNC comprising information for transferring the UE from the URA PCH or the CELL PCH state directly to the CELL DCH state by means of the delay reducing information in the data transfer initiating message.

In an analogous field of endeavor, Wallentin teaches the method comprising the steps of: introducing delay reducing information into a data transfer initiating message by the UE (**See Wallentin e.g., the mobile station initiating connection state**

**transition based on the packet flow/packet density parameters, determining if the connection state is necessary, sending a signal to the RNC of Col. 8:55-60, Fig. 8 elements of the packet flow measurement units, the uplink/downlink directions of the connections, the connection queues, and the controllers 26, 30, 71, 75, and 81-82);** Wherein the data transfer initiating message is an uplink cell update message transmitted by the UE (**See Wallentin e.g., the mobile station sending a signal to the RNC concerning the connection state transition of Col. 8:55-60, Figs. 7-8 steps of DCH-handover, DCH cell update, FACH/RACH cell update, and PCH/RACH routing area update**); and wherein the delay reducing information comprises information indicating whether the traffic volume of the data to be transmitted is above a pre-configured threshold (**See Wallentin e.g., the comparison performed between queue length and the threshold in order for the controller to make the connection state change of Col. 6:33-67, Col. 7:1-5, Fig. 5 steps of 52-58 comparison of the queue length, the threshold, and the selection of shared/dedicated channels**); transmitting the data transfer initiating message by the UE (**See Wallentin e.g., the mobile station controller handling the signaling over the radio interface to make the connection state change of Col. 8:55-60, Fig. 8 The mobile terminal, The RNC, the measurement units, the controllers, and the connection selectors 26, 30, 70-71, 75, and 81-82**); receiving a message from the RNC comprising information for transferring the UE from the URA PCH or the CELL PCH state directly to the CELL DCH state by means of the delay reducing information in the data transfer initiating message (**See Wallentin e.g., transferring connection states based on traffic**

**density/volume, i.e., reducing delay by changing connection states of Col. 7:53-65, Col. 8:19-25, Figs. 6-7 the packet density, the packet arrival time, and prediction/selection of optimal connection state based on them).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Wallentin to Sharma for the purpose of dynamically selecting an optimal connection state from a plurality of connection states based on a predicted traffic parameter as suggested (**See Wallentin e.g., Col. 2:59-64**)

Consider **claims 53, 70, and 86**, the combination teaches everything claimed as implemented above (see claims 50, 67, and 83). In addition, Wallentin teaches that wherein the delay reducing information further comprises information whether the data to be transmitted is available on a user bearer or on a signaling bearer (**See Wallentin e.g., the connection states based on various factors and considerations i.e. desired bearer service, current amount of data in the queue, current connection state of Col. 4:43-59, Fig. 7 steps of DCH-handover, DCH cell update, FACH/RACH cell update, and PCH/RACH routing area update**).

Consider **claims 54, 71, 78-79, 87, and 94-95**, the combination teaches everything claimed as implemented above (see claims 50, 67, 83). In addition, Wallentin teaches that wherein the delay reducing information is indicated in an extension of the cell update message (**See Wallentin e.g., selection of connection states using parameter information from the requested data service of Col. 7:53-65, Fig. 7 steps of DCH-handover, DCH cell update, FACH/RACH cell update, and**

**PCH/RACH routing area update).**

Consider **claims 55, 72, 80, 88 and 96**, the combination teaches everything claimed as implemented above (see claims 54, 71, 78, 87, and 91). In addition, Wallentin teaches that wherein the extension comprises at least one dedicated flag **(See Wallentin e.g., the connection state selector signaling (an indication) the controller for connection state change of Col. 8:55-60, Fig. 8 The mobile terminal, The RNC, the measurement units, the controllers, and the connection selectors 26, 30, 70-71, 75, and 81-82).**

Consider **claims 56, 73, and 89**, the combination teaches everything claimed as implemented above (see claim 50, 67, 83). In addition, Wallentin teaches that wherein the extension comprises currently reserved code points comprising spare values in the existing cell update message **(See Wallentin e.g., allocation of spreading codes and the connection state selector signaling the controller for connection state change of Col. 9:19-26, Fig. 9 steps of the RNC allocating spreading codes).**

Consider **claims 57, 74, 81, and 97**, the combination teaches everything claimed as implemented above (see claim 50, 67, 75, and 91). In addition, Wallentin teaches that wherein the step of receiving a message from the RNC comprises the steps of: receiving a cell update confirm message from the RNC **(See Wallentin e.g., the RNC sending message to the mobile station with change of connection state information of Col. 9 lines 13-25, Fig. 7);** and, transmitting a Radio Bearer configuration complete message to the RNC **(See Wallentin e.g., initiation of the connection state transition by the mobile station based on the packet flow/packet**

**density parameters of Col. 8:19-25, Figs. 6-7 transition for optimal connection states).**

Consider **claims 75, 91**, the combination teaches everything claimed as implemented above (see claim 67, 83). In addition, Wallentin teaches wherein the data transfer initiating message is a downlink paging message is transmitted by the RNC **(See Wallentin e.g., allocation of spreading codes and the RNC sending message to the mobile station with change of connection state information of Col. 9:13-25).**

Consider **claims 76, 92**, the combination teaches everything claimed as implemented above (see claim 67, 83). In addition, Wallentin teaches wherein the delay reducing information comprises **any** of the information parameters: physical and transport channel configuration parameters, code allocation and radio bearer configuration, and the identity parameter U-RNTI **(See Wallentin e.g., the UTRAN architecture, and allocation of spreading codes and the RNC sending message to the mobile station with change of connection state information of Col. 9:13-25).** .

Consider **claims 77, 93**, the combination teaches everything claimed as implemented above (see claim 76, 92). In addition, Wallentin teaches wherein the delay reducing information further comprises at least an uplink Dedicated Physical Channel (DPCH) related information, downlink DPCH related information, downlink radio link related information, power control configurations or potential high speed downlink shared channel (HS-DSCH) configurations **(See Wallentin e.g., the connection states DCH, PCH, and downlinks/uplinks of Col. 7:53-67, Col. 8:1-13, Fig. 7)**

***Conclusion***



Any inquiry concerning this communication or earlier communications from the examiner should be directed to BABAR SARWAR whose telephone number is (571)270-5584. The examiner can normally be reached on MONDAY TO FRIDAY 08:00 AM -04:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NICK CORSARO can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BABAR SARWAR/  
Examiner, Art Unit 2617

/NICK CORSARO/  
Supervisory Patent Examiner, Art Unit 2617

